

SUPPLEMENTAL AMENDMENT UNDER 37 C.F.R. §1.111  
U.S. Appl. No. 10/069,590

**AMENDMENTS TO THE CLAIMS**

This listing of claims will replace all prior versions and listings of claims in the application:

**LISTING OF CLAIMS:**

1. (previously presented): A catalyst for deep desulfurization of a mineral oil corresponding to kerosene, comprising a nickel component containing nickel and nickel oxide, zinc oxide, and aluminum oxide,

wherein the content of the nickel component in terms of nickel oxide is from 5 to 25% by weight, and the content of the zinc oxide is from 30 to 70% by weight, each based on the total of the nickel component in terms of nickel oxide, the zinc oxide, and the aluminum oxide,

the nitrogen monoxide adsorption of the catalyst at 1 kg/cm<sup>2</sup> ( $9.80 \times 10^{-2}$  MPa) and 40°C after hydrogen reduction at 360°C is 4.0 ml/g or more in terms of standard temperature and pressure, and

the catalyst has a specific surface area of from 10 to 300 m<sup>2</sup>/g.

2. (original): The deep desulfurization catalyst according to claim 1, which is obtained by carrying out an activation treatment in the presence of hydrogen at a temperature of from 200 to 400°C and a pressure of from 1 to 20 kg/cm<sup>2</sup> ( $9.80 \times 10^{-2}$  to 1.96 MPa).

Claims 3 and 4 (canceled).

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5. (previously presented): The desulfurization catalyst according to claim 1, wherein the content of the zinc oxide is from 40 to 70% by weight.

6. (previously presented): The desulfurization catalyst according to claim 1, wherein the content of the zinc oxide is from 50 to 70% by weight.